IN THE CLAIMS:

Please cancel claims 1, 8-10, 21, 24, 29, and 41-43.

Please amend the claims as follows:

1. (CANCELED)

2. (PREVIOUSLY CANCELED)

3. (PREVIOUSLY CANCELED)

4. (PREVIOUSLY CANCELED)

5. (PREVIOUSLY CANCELED)

6. (PREVIOUSLY CANCELED)

7. (PREVIOUSLY CANCELED)

8. (CANCELED)

9. (CANCELED)

10. (CANCELED)

11. (AMENDED) A vector comprising the nucleic acid ~~of claim 1~~ as claimed in claim 44.

12. (ORIGINAL) The vector of claim 11, which is an expression vector, a shuttle vector, an integration vector, a transposon, or a retrotransposon.

13. (ORIGINAL) The vector of claim 11, which is pTRIP ΔU3 EF1αGFP.

14. (ORIGINAL) A recombinant cell comprising the vector of claim 11.

15. (AMENDED) A virus comprising the nucleic acid ~~of claim 1~~ as claimed in claim 44.

16. (ORIGINAL) The virus of claim 15 which is a retrovirus.

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17. (ORIGINAL) The retrovirus of claim 16, which is a lentivirus.

18. (AMENDED) A recombinant cell comprising the nucleic acid ~~of claim 1~~ as claimed in claim 44.

19. (ORIGINAL) The recombinant cell of claim 18, wherein the cell is a HeLa cell or a hematopoietic stem cell.

20. (ORIGINAL) The recombinant cell of claim 19, which is a hematopoietic stem cell.

21. (CANCELED)

22. (AMENDED) The process ~~of claim 21~~ as claimed in claim 45, wherein the efficiency of insertion of the nucleic acid of interest into the target cell nucleus is 30% or greater.

23. (AMENDED) The process ~~of claim 21~~ as claimed in claim 45, wherein the nucleic acid of interest is ~~present on~~ in a vector.

24. (CANCELED)

25. (PREVIOUSLY AMENDED) The process ~~of claim 24~~ as claimed in claim 45, wherein the heterologous nucleic acid encodes a peptide, polypeptide, or protein.

26. (ORIGINAL) The process of claim 25, wherein the protein is therapeutic protein.

27. (AMENDED) The process ~~of claim 21~~ as claimed in claim 45, wherein the target cell is a non-dividing cell.

28. (AMENDED) The process ~~of claim 21~~ as claimed in claim 45, wherein the target cell is a HeLa cell or a hematopoietic cell.

29. (CANCELED)

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30. (AMENDED) The process ~~of claim 29~~ as claimed in claim 46, wherein the nucleic acid is ~~present on~~ in a vector.

31. (AMENDED) The process ~~of claim 29~~ as claimed in claim 46, wherein the gene of interest is expressed in tissue culture.

32. (AMENDED) The process ~~of claim 29~~ as claimed in claim 46, which further comprises purifying or isolating the product of expression of the gene of interest.

33. (PREVIOUSLY CANCELED)

34. (PREVIOUSLY CANCELED)

35. (PREVIOUSLY CANCELED)

36. (PREVIOUSLY CANCELED)

37. (PREVIOUSLY CANCELED)

38. (PREVIOUSLY CANCELED)

39. (PREVIOUSLY CANCELED)

40. (PREVIOUSLY CANCELED)

41. (CANCELED)

42. (CANCELED)

43. (CANCELED)

Please add the following new claims:

-44. (NEW) An isolated or purified nucleic acid, wherein the nucleic acid comprises:

(A) retroviral nucleic sequences consisting of:

(1) ψ packaging sequences;

(2) cis-acting nucleic acid sequences for reverse transcription;

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(3) cis-acting nucleic acid sequences for virus integration;

(4) at least one cPPT sequence and at least one CTS sequence; and

(5) optionally a cis-acting sequence RRE;

and

(B) at least one heterologous nucleic acid sequence of interest,

wherein the isolated or purified nucleic acid induces import of the heterologous nucleic acid sequence of interest into a cell nucleus.

45. (NEW) A process for inserting a heterologous nucleic acid sequence of interest into a nucleus of a target cell, *in vitro*, wherein the process comprises exposing an isolated or purified nucleic acid to a target cell under conditions that permit uptake of the isolated or purified nucleic acid into the target cell, wherein the isolated or purified nucleic acid comprises:

(A) retroviral nucleic sequences consisting of:

(1) ψ packaging sequences;

(2) cis-acting nucleic acid sequences for reverse transcription;

(3) cis-acting nucleic sequences for virus integration;

(4) optionally a cis-acting sequence RRE; and

(5) at least one cPPT sequence and at least one CTS sequence;

and,

(B) at least one heterologous nucleic acid sequence of interest,

wherein the isolated or purified nucleic acid induces import of the heterologous nucleic acid sequence of interest into the cell nucleus.

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46. (NEW) A process for expressing a heterologous nucleic acid sequence of interest, *in vitro*, wherein the process comprises:

(A) exposing a target cell to an isolated or purified nucleic acid under conditions that permit uptake of the isolated or purified nucleic acid into the target cell to create a recombinant cell, wherein the isolated or purified nucleic acid comprises:

(1) retroviral nucleic sequences consisting of:

(a) ψ packaging sequences;

(b) cis-acting nucleic acid sequences for reverse transcription;

(c) cis-acting nucleic sequences for virus integration;

(d) optionally a cis-acting sequence RRE; and

(e) at least one cPPT sequence and at least one CTS sequence;

and

(2) at least one heterologous nucleic acid sequence of interest, wherein the isolated or purified nucleic acid induces import of the heterologous nucleic sequence of interest into a cell nucleus,

and

(B) culturing the recombinant cell under conditions that permit at least part of the isolated or purified nucleic acid to be transferred to the nucleus of the recombinant cell and the heterologous nucleic acid of interest to be expressed.

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47. (NEW) A nucleic acid comprising the *Cla*I insert and *Eco*RI/*Bam*HI insert of the vector pTRIPΔU3EF1αGFP deposited at National Collection of Cultures of Microorganismes, Accession Number I-2328.

48. (NEW) A vector comprising the nucleic acid as claimed in claim 50.

49. (NEW) A recombinant cell comprising the vector of claim 13.

50. (NEW) An isolated or purified nucleic acid comprising:

(A) retroviral nucleic acid sequences comprising:

1. ψ packaging sequences;
2. cis-acting nucleic sequences for reverse transcription;
3. cis-acting nucleic sequences for virus integration;
4. optionally a cis-acting sequence RRE; and
5. at least one cPPT sequence and at least one CTS sequence, wherein any other sequence of *pol* is absent;

and

(B) at least one heterologous nucleic acid sequence,

wherein the isolated or purified nucleic acid sequence induces import of the heterologous nucleic sequence into a cell nucleus.

51. (NEW) A process for inserting a heterologous nucleic acid sequence of interest into the nucleus of a target cell, *in vitro*, said method comprising exposing an isolated or purified nucleic acid to a target cell under conditions that permit uptake of said nucleic acid into the target cell, wherein said isolated or purified nucleic acid comprises:

(A) retroviral nucleic sequences comprising:

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(1) ψ packaging sequences;

(2) cis-acting nucleic acid sequences for reverse transcription;

(3) cis-acting nucleic sequences for virus integration;

(4) at least one cPPT sequence and at least one CTS sequence, wherein any other sequence of *pol* is absent; and

(5) optionally a cis-acting sequence RRE;

and

(B) at least one heterologous nucleic acid sequence;

wherein the isolated or purified nucleic acid sequence induces import of the heterologous nucleic sequence into a cell nucleus.

52. (NEW) A process for expressing a heterologous nucleic acid sequence of interest *in vitro* comprising:

(A) exposing target cells to an isolated or purified nucleic acid under conditions that permit uptake of said nucleic acid into the target cell to create a recombinant cell, wherein said isolated or purified nucleic acid comprises:

(1) retroviral nucleic acid sequences comprising:

(a) ψ packaging sequences;

(b) cis-acting nucleic acid sequences for reverse transcription;

(c) cis-acting nucleic sequences for virus integration;

(d) at least one cPPT sequence and at least one CTS sequence, wherein any other sequence of *pol* is absent; and

(e) optionally a cis-acting sequence RRE;

and

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(2) at least one heterologous nucleic acid sequence of interest, wherein the isolated or purified nucleic acid sequence induces import of the heterologous nucleic acid sequence into a cell nucleus;

and

(B) culturing the recombinant cell under conditions that permit at least part of the nucleic acid to be transferred to the nucleus of the recombinant cell and the heterologous nucleic acid of interest to be expressed.--

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